

The Future Does Not Compute: Transcending the Machines in Our Midst. By Stephen L. Talbott. O'Reilly & Associates, Inc., Sebastopol, CA. (1995). 481 pages. \$22.95.

Contents:

Foreword. Acknowledgments. 1. Can human ideals survive the Internet? Part 1. Man, computers, and community. 2. The machine in the ghost. 3. The future does not compute. 4. Settlers in cyberspace. 5. On being responsible for Earth. 6. Networks and communities. 7. At the fringe of freedom. 8. Things that run by themselves. 9. Do we really want a global village? 10. Thoughts on a group support system. 11. In summary. Part 2. Computers in education. 12. Net-based learning communities. 13. Impressing the science out of children. 14. Children of the machine. Part 3. The electronic word. 15. Dancing with my computer. 16. The tyranny of the detached word. 17. The great information hunt. 18. And the word became mechanical. 19. Listening for the silence. Part 4. Owen Barfield, computers, and the evolution of consciousness. 20. Awakening from the primordial dream. 21. Mona Lisa's smile. 22. Seeing in perspective. 23. Can we transcend computation? 24. Electronic mysticism. 25. What this book was about. Appendices. A. Owen Barfield: The evolution of consciousness. B. From virtual to real. C. Education without computers. Bibliography. Index.

Cryptography: Theory and Practice. By Douglas R. Stinson. CRC Press, Boca Raton. (1995). 434 pages. \$64.95.

Contents:

1. Classical cryptography. 2. Shannon's theory. 3. The Data Encryption Standard. 4. The RSA System and factoring. 5. Other public-key cryptosystems. 6. Signature schemes. 7. Hash functions. 8. Key distribution and key agreement. 9. Identification schemes. 10. Authentication codes. 11. Secret sharing schemes. 12. Pseudo-random number generation. 13. Zero-knowledge proofs. 14. Exercises. Further reading. Bibliography. Index.

A TeX Primer for Scientists. By Stanley A. Sawyer and Steven G. Krantz. CRC Press, Boca Raton. (1995). 399 pages. \$31.95.

Contents:

I. A first course in TeX. 1. Basics of TeX. 2. Basic mathematics. 3. More basic mathematics. 4. More math: Macros and alignments. 5. Fonts and macros in text. 6. Typesetting an article or report. 7. Typesetting versus ordinary typing. II. A second course in TeX. 8. Variables in TeX. 9. Displays and lists. 10. Fonts. 11. Fonts in math mode. 12. More graphics and macros. 13. Tables and haligns. 14. Macros for special purposes. References. Glossary. Appendices. Index.

She Does Math! Edited by Marla Parker. Mathematical Association of America, Washington, DC. (1995). 253 pages. \$24.00.

Contents:

Preface. Problems by subject. Environmental psychology (Susan C. Knasko). Software engineering; Computer science (Mary E. Campione). Archaeology (Shelly J. Smith). Mathematics and computer science (Maryam Shayegan Hastings). Civil engineering (Donna McConnaha Sheehy). Mathematics (Linda Valdés). Electrical engineering (Jill S. Baylor). Physics; X-ray astronomy research (Lynn R. Cominsky). Mathematics (Renate McLaughlin). Physics; Astronaut crew training instructor (Rena Haldiman). Business data processing (Elaine Anselm). Software engineering; Real estate investment (Smadar Agmon). Quality engineering (Christine Eckler). Health science (Sally Irene Lipsey). Nursing education (Janean D. Bowen). Electrical engineering; Space systems (Amy C.R. Gerson). Oil and gas accounting (Marilyn K. Halpin). Business administration higher education (Martha Leva). Aerospace engineering (Caroline P. Nguyen). Structural engineering (Linda K. Lanham). Computer science (Marla Parker). Mathematics (Eileen L. Poiani). Dietetics—Foodservice management and nutrition (Nancy Powers Siler). Electrical engineering (Fahmida N. Chowdhury). Chemical engineering, retired (Rosalie Dinkey). Software engineering (Susan J. LoVerso). Immunology and microbiology (Eileen Thatcher). Mechanical engineering (Julie A. Pollitt). HMO pharmacy practice and management (Helen Townsend-Beteet). Ophthalmology (Jane D. Kivlin). Electrical engineering (Sharon G. Lum). Fish pathology (Beth MacConnell). Computer science and computer graphics (Barbara Swetman). Mathematics and computing (Polly Moore). Electrical engineering (Lynn Stiglich). Astronomy (Nancy G. Roman). Author (Claudia Zaslavsky). Mathematics (Jean E. Taylor). Reflections on WAM by Eileen L. Poiani. Solutions.

Finite Sums Decompositions in Mathematical Analysis. By Themistocles M. Rassias and Jaromír Šimša. John Wiley & Sons, Chichester. (1995) 172 pages. \$29.95.

Contents:

Prologue. 1. Functional determinants. 2. Basic decomposition theorems for functions of two variables. 3. Decompositions of functions of several variables. 4. Finite-dimensional spaces of smooth functions. 5. Decompositions of smooth functions on manifolds. 6. Approximate decompositions of smooth functions. 7. The best L^2 -approximations of two-place functions. 8. Geometry of the d'Alembert equation. Open problems. References. General notation. Symbol index. Subject index.

The Computer Contradictionary (Second edition). By Stan Kelly-Bootle. The MIT Press, Cambridge, MA. (1995). 239 pages. \$14.95.